

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT  
(Use several sheets if necessary) *DEF 05 1999*

(37 CFR 1.98(b))

APPLICANT  
Steven M. Reppert et al.FILING DATE  
January 5, 1999GROUP  
*1643-1646*

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	PATENT NUMBER							ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>MOP</i>	BA	5	1	9	4	6	1	4	03/16/93	Andrieux et al.		
<i>MOP</i>	BB	5	2	4	0	9	1	9	08/31/93	Yous et al.		
<i>MOP</i>	BC	5	2	7	6	0	5	1	01/04/91	Lesieur et al.		
	BD											
	BE											
	BF											
	BG											

## FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

	DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
<i>MPP</i>	BH	0591057	01/10/93 Europe				
	BI						

## OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

<i>MPP</i>	BJ	Duranti et al., "2-Bromomelatonin: Synthesis And Characterization Of A Potent Melatonin Agonist" <i>Life Sciences</i> 51: 479-485 (1992)
		Reppert et al., "Putative Melatonin Receptors In A Human Biological Clock" <i>Science</i> 242: 78-81 (1988)
	BL	Spadoni et al., "2-Substituted 5-Methoxy-N-Acyltryptamines: Synthesis, Binding, Affinity For The Melatonin Receptor, And Evaluation Of The Biological Activity" <i>The Journal Of Medicinal Chemistry</i> 36: 4069-4074 (1993)
		Ying et al., "Human Malignant Melanoma Cells Express High-Affinity Receptors For Melatonin: Antiproliferative Effects Of Melatonin And 6-Chloromelatonin" <i>European Journal Of Pharmacology</i> , 246: 89-96 (1993)
<i>MOP</i>	BN	Yous et al., "Novel Naphthalenic Ligands With High Affinity For The Melatonin Receptor" <i>The Journal Of Medicinal Chemistry</i> 35: 1484-1486 (1992)

EXAMINER	DATE CONSIDERED
<i>MICHAEL PARK</i>	<i>3/5/2000</i>

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(MODIFIED)

PATENT AND TRADEMARK OFFICE

10217/1003

SERIAL NO.  
09/226,046INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT  
(Use several sheets if necessary)

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APPLICANTS:

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## U.S. PATENT DOCUMENTS

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## FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
					YES	NO

## OTHER DOCUMENTS (including Author, Title, Date, Place of Publication)

MOP	AA	Bagnara, J.T. and Hadley, M.E., "Endocrinology of the Amphibian Pineal", <u>Am. Zoologist</u> (1970) 10:201-216
↑	AB	Bartness, T.J. and Goldman, B.D., "Mammalian pineal melatonin: A clock for all seasons", <u>Experientia</u> (1989) 45:939-945
	AC	Bittman, E. L. and Weaver, D. Dr., "The distribution of melatonin binding sites in neuroendocrine tissues of the ewe", <u>Biology of Reproduction</u> , (1990) 43:986-993
	AD	Carlson, L.L. et al., "Melatonin Signal Transduction in Hamster Brain: Inhibition of Adenylyl Cyclase by a Pertussis Toxin-Sensitive G Protein", <u>Endocrinology</u> (1989) 125:2670-2676
	AE	Dubocovich, M.L. and Takahashi, J.S., "Use of 2-[ <sup>125</sup> I]iodomelatonin to characterize melatonin binding sites in chicken retina", <u>Proc. Natl. Sci. USA</u> (1987) 84:3916-3920
	AF	Ebisawa, T. et al., "Expression cloning of a high-affinity melatonin receptor from <i>Xenopus</i> dermal melanophores", <u>Proc. Natl. Acad. Sci. USA</u> , (1994) 91:6133-6137
	AG	Geissler, E.N. et al., "Stem Cell Factor (SCF), a Novel Hematopoietic Growth Factor and Ligand for c-kit Tyrosine Kinase Receptor, Maps on Human Chromosome 12 between 12q14.3 and 12qter", <u>Somatic Cell and Molecular Genetics</u> , (1991) 17(2):207-214
	AH	Glaser, T., Housman, D., Lewis, W.H., Gerhard, D. & Jones C. "A Fine-Structure Deletion Map of Human Chromosome 11p: Analysis of J1 Series Hybrids" <u>Somat. Cell. Mol. Genet.</u> , (1989) 15:477-501, Fig. 23.
	AI	Karne, S. et al., "Cloning and Characterization of an Endothelin-3 Specific Receptor (ET <sub>c</sub> Receptor) from <i>Xenopus laevis</i> Dermal Melanophores", <u>J. Biol. Chem.</u> (1993) 268:19126-19133
	AJ	Karsch, F.J. et al., "Neuroendocrine Basis of Seasonal Reproduction", <u>Recent Prog. Horm. Res.</u> (1984) 40:185-232
	AK	Kozak, M., "An analysis of 5'-noncoding sequences from 699 vertebrate messenger RNAs", <u>Nucleic Acids Res.</u> (1987) 15:8125-8148
↓	AL	Kyte, J. and Doolittle, R.F., "A Simple Method for Displaying the Hydropathic Character of a Protein", <u>J. Mol. Biol.</u> (1982) 157:105-132
MOP	AM	Laitinen, J.T. and Saavedra, J.M., "Characterization of Melatonin Receptors in the Rat Suprachiasmatic Nuclei: Modulation of Affinity with Cations and Guanine Nucleotides", <u>Endocrinology</u> (1990) 126:2110-2115

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DATE CONSIDERED 3/5/2000

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SUBSTITUTE FORM PTO-1449  
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PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
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APPLICANT:  
Steven M. Reppert et al.FILING DATE  
January 5, 1999GROUP  
1643 1646

## OTHER DOCUMENTS (including Author, Title, Date, Place of Publication)

A47P	AN	Morgan, P.J. et al., "Guanine Nucleotides Regulate the Affinity of Melatonin Receptors on the Ovine Pars tuberalis", <u>Neuroendocrinology</u> (1989) 50:359-362
1	AO	Munson, P.J. and Rodbard, D., "LIGAND: A Versatile Computerized Approach for Characterization of Ligand-Binding Systems", <u>Anal. Biochem.</u> (1980) 107:220-239
	AP	Pelletier, J. et al., "Short Communication - Assignment of Two of the Translation Initiation Factor-4E (EIF4EL1 and EIF4EL2) Genes to Human Chromosomes 4 and 20", <u>Genomics</u> (1991) 10(4):1079-1082
	AQ	Reppert, S.M. et al., "Putative Melatonin Receptors in a Human Biological Clock", <u>Science</u> (1988) 242:78-81
	AR	Reppert, S.M. et al., "Cloning and Characterization of a Mammalian Melatonin Receptor That Mediates Reproductive and Circadian Responses", <u>Neuron</u> (1994) 13:1177-1185
	AS	Rivkees, S.A. et al., "Guanine nucleotide-binding protein regulation of melatonin receptors in lizard brain", <u>Proc. Natl. Acad. Sci. USA</u> (1989) 86:3882-3886
	AT	Vanecek, J., "Melatonin Binding Sites", <u>J. Neurochem.</u> (1988) 51:1436-1440
↓	AU	Weaver, D.R. et al., "Localization of Melatonin Receptors in Mammalian Brain" in <u>Suprachiasmatic nucleus: the mind's clock</u> , Klein, D.C. Moore, R.Y., and Reppert, S.M. (1991) eds. New York: Oxford University Press: pp 289-308
A47P	BA	Weaver, D.R. et al., "Localization and Characterization of Melatonin Receptors in Rodent Brain by in vitro Autoradiography", <u>The Journal of Neuroscience</u> (1989) 9(7):2581-2590
	BB	
	BC	
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EXAMINER MICHAEL PAK

DATE CONSIDERED 3/5/2000

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Substitute Disclosure Form (PTO-1449)

SUPPLEMENTAL INFORMATION DISCLOSURE  
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APPLICANTS:

Steven M. Reppert et al.

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GROUP

1643/646

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

	DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION
						YES
						NO

OTHER DOCUMENTS (including Author, Title, Date, Place of Publication)

MP	AA	Carlson, Linda L. et al. "Melatonin Signal Transduction in Hamster Brain: Inhibition of Adenylyl Cyclase by a Pertussis Toxin-Sensitive G. Protein", <u>Endocrinology</u> (1989) Vol.125:2670-2676
↑	AB	Dubocovich, Margarita L., "Pharmacology and Function of Melatonin Receptors" <u>FASEB Journal</u> (1988) Vol.2:2765-2773
↓	AC	Kopin, Alan S. et al., "Expression Cloning and Characterization of the Canine Parietal Cell Gastrin Receptor" <u>Proc.Natl.Acad.Sci. USA</u> (1992) Vol.89:3605-3609
MP	AD	Masu, Yasuo et al., "cDNA Cloning of Bovine Sustance-K Receptor Through Oocyte Expression System" <u>Nature</u> (1987) Vol.329:836-838
	AE	
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	AH	
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EXAMINER MICHAEL PPH

DATE CONSIDERED 3/15/2000

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MOP	AA	5	5	0	8	1	6	4	04/96	Kausch et al.	435	6	
	AB												
	AC												
	AD												
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	AG												
	AH												
	AI												

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						YES	NO
MOP	AJ	PCT/US95/07360	PCT				
	AK						
	AL						

## OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

MOP	AM	Bowie et al., Science 247:1306-1310 (1990)
	AN	Fraser et al., "Melatonin Receptor mRNA Expression in Xenopus Oocytes: inhibition of G-Protein-activated Response", NEUROSCIENCE LETTERS, 124:242-245 (1991)
	AO	George et al., "Macromolecular Sequencing and Synthesis Selected Methods and Application (Ed. by D.H. Schlesinger), Alan R. Liss Inc., New York, pp. 127-149 (1988)
	AP	Wallace et al., METHODS IN ENZYMOLOGY 152:422-432 (1987)
MOP	AQ	Watson et al., "The G-Protein Linked Receptor Facts Book, Academic Press, San Diego, pp. 2-6, 8-9, (1994)

EXAMINER

MICHAEL M.

DATE CONSIDERED

3/5/2001

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APPLICANT

Steven M. Reppert

FILING DATE

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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
MPR		5,194,614	3/16/93	Andrieux et al.			
↑		5,240,919	8/31/93	Yous et al.			
↓		5,276,051	1/4/94	Lesieur et al.			
MPR		5,464,872	11/7/95	Langlois et al.			

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		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
MPR	WO	95/35320	12/28/95	PCT			
MPR		0,591,057	10/1/93	EPO			

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

MPR	S.P. Fraser et al., "Melatonin receptor mRNA expression in <i>Xenopus</i> oocytes: inhibition of G-protein-activated response" <i>Neuroscience Letters</i> , 123 (1991), 242-245.
↑	M.L. Dubocovich, "Pharmacology and function of melatonin receptors" <i>The FASEB Journal</i> , Vol. 2 (1988), 2765-2773.
↓	L.L. Carlson et al., Melatonin signal transduction in hamster brain: Inhibition of adenylyl cyclase by a pertussis toxin-sensitive G protein" <i>Endocrinology</i> , Vol. 125 (1989), 2670-2676.
MPR	Yous et al., "Novel naphthalenic ligands with high affinity for the melatonin receptor" <i>Journal of Medicinal Chemistry</i> , Vol. 35 (1992), 1484-1486.

EXAMINER Michael L. P. R. DATE CONSIDERED 3/5/2000

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## U. S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

## FOREIGN PATENT DOCUMENTS

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## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>MDP</i>	G. Spandoni et al., "2-Substituted 5-Methoxy-N-acyltryptamines: Synthesis, binding affinity for the melatonin receptor, and evaluation of the biological activity" <i>Journal of Medicinal Chemistry</i> , Vol. 36 (1993), 4069-4074.
<i>↑</i>	S.M. Reppert et al., "Putative melatonin receptors in a human biological clock" <i>Science</i> , Vol. 242 (1988), 78-81.
<i>↓</i>	S.W. Ying et al., "Human malignant melanoma cells express high-affinity receptors for melatonin: antiproliferative effects of melatonin and 6-chloromelatonin" <i>European Journal of Pharmacology - Molecular Pharmacology Section</i> , Vol. 246 (1993), 89-96.
<i>MED</i>	E. Duranti et al., "2-Bromomelatonin: synthesis and characterization of a potent melatonin agonist" <i>Life Sciences</i> , Vol. 51 (1992), 479-485.

EXAMINER *MICHAEL PARK*DATE CONSIDERED *3/5/2000*

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Sheet 2 of 2